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ABSTRACT

Conceptual problems in the school-effectiveness literature are examined in this paper, with a focus on the development of two models for school effectiveness. Four necessary components of an effective-schools model include the nature and extent of the educational goals, techniques for recognition, methods for measuring school effectiveness, and school processes. The first model presented deals with how to recognize an effective school. The second is a process model that identifies the complex interaction between goals and processes. The two models help to explain why school-effectiveness research has concentrated on the recognition of effective schools rather than an explication of how they achieved that status. Eight figures are included. (Contains 45 references.) (LMI)

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School Effectiveness: Identifying the Complexities

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INTRODUCTION

Many education systems around the world are currently developing policies, programs or research in school effectiveness, not only at the school level, but also at the systemic, state or national levels, and it seems that these developments are likely to be among the dominant educational themes in the 1990s. However, not everyone is prepared to accept that the school effectiveness literature is more than a limited attempt to describe "what is", rather than what "ought to be". Rosenholtz (1989) argued:

> This is a topic with voluminous literature (and much commentary), but precious little theory to guide it. Studies have been episodic, not consciously building on each other. There has been much independent ploughing and reploughing of the same ground. Moreover, an air of methodological criticism hovers about it, as though the central problem were that of merely refining output measures, of controlling for previously overlooked variables, of quantifying what are largely case-study findings, or of sampling still wider populations to assure generalizability.
>
> But the most interesting questions in this area are not at all methodological, they are conceptual. Not how to measure school effectiveness but what to measure; the manner in which school structure interrelates with its functioning and its productivity. Problems plaguing this literature are not mere inconveniences to be brushed aside until more rigorously designed studies come along. Instead, they are fundamental to school life itself.
>
> (Rosenholtz, 1989:1-2)

If the school effectiveness studies are plagued with conceptual problems, then it is necessary to identify, and possibly overcome, some of these before research in the area can proceed further.

SOME CONCEPTUAL DILEMMAS

QUALITY AND EQUALITY OF EDUCATIONAL OUTCOMES

One of the problems for the school effectiveness debate arises from the failure of researchers to define adequately the concept of "effectiveness". Approaches to this task have emphasised various issues, such as the "quality of educational outcomes", the

"equality of educational outcomes" or the "equality of educational opportunities". The early definition by Edmonds that:

> Specifically, I require that an effective school bring the children of the poor to those minimal masteries of basic school skills that now describe minimally successful pupil performances for the children of the middle class.
>
> (Edmonds, 1979:16)

suggests equality of educational outcomes. The suggestion here is that all children should at least perform minimally well. An implication of this statement is that resources should be deployed to ensure this outcome. In schools where limited funds are available, a further implication would be that these resources would be taken from those areas which provide the extension work necessary to achieve higher standards and from those areas in which not all children can succeed, but where those with talent can fulfil their potential.

However, the idea of an equality of educational outcomes is untenable, since it is not possible to have everyone being equal first, unless first involves a dropping of the standard to one that everyone can achieve. Even if the standards are dropped to such an extent that everyone can achieve them, there will still not be an equality of outcomes since some students will just achieve those standards and others will far exceed them. However, if the goal of effectiveness is to have equality of educational opportunity, then there may be some possibilty for an acceptance of the concept. It would provide all students with the opportunity to succeed by being involved in a quality program. Not all students would achieve to the same extent, but the opportunity to succeed, which may involve the allocation or redistribution of some resources to those who need additional help, would enable all children to fulfil their own potential, even though that potential would differ from student to student. In this instance, the concept is not concerned with minimal achievement of all students, but maximum personal achievement for each student.

This interpretation of equality of educational opportunity raises the difficulty of considering both quality and equality simultaneously. The two concepts may be mutually exclusive. However, Fantini argued that "like excellence, quality is universally acceptable, but elusive in character" (Fantini, 1986:44). He argued it is possible to consider four dimensions of quality, the individual student, the curriculum, the teacher and the outcomes of the educational process. The first encourages school systems to identify the best students and to give them the best education, which seems to conflict with the notion of equality. However, if the other three dimensions are considered, a combination of the quality staff and quality programs with appropriate methods of evaluating the outcomes of the programs, does not conflict with the idea of equality. For Fantini, "when quality and equality are merged, elitism is replaced by *inclusivity*. Quality is not measured by how few students succeed, but by how many succeed" (Fantini, 1986:50). From this perspective there is no inherent contradiction in suggesting that quality and equality can exist side by side. A school that offers a quality program, where all or most students satisfactorily complete that program, with no variation in completion rates between students with different family backgrounds, could be seen as an effective school.

THE RELATIONSHIP BETWEEN THE CONCEPT OF EFFECTIVE SCHOOLS AND THE PRACTICE OF SCHOOL EFFECTIVENESS

This may be the most difficult of all the dilemmas associated with school effectiveness. Since the study of school effectiveness has been limited to generally those areas of the educational domain that lend themselves to easily understood measurement and analysis devices, then it may well be that the current understanding of what an effective school is only tells part of the story. It is an entirely different matter to make schools more effective in practice. Reynolds and Pack argued that "researchers know considerably more about the characteristics of good schools than about how to make schools good" (Reynolds and Pack, 1989:2). This seems to suggest that it may well be easier to recognise a school as being more or less effective than other schools than it is

to explain why or how it came about. For this reason, much of the research has focused upon identifying characteristics associated with effective schools, in the hope that this knowledge will somehow help other schools to become more effective.

However, the research thus far has not provided a great deal of detail in terms of establishing the complex inter-relationships between the identified characteristics, yet it may be here that the heart of the matter lies. If the issue of school effectiveness could be reduced to having a finite number of characteristics present within the school, then it could be argued that all schools recognised as being effective must have those characterisitics operating within them. Yet the research has shown that this is clearly not the case. To take just one characteristic, that of leadership, as an instance, there seems to be a variety of views held in the research. Some, but not all, schools that have been considered effective have had good leadership at the school site. Some studies characterise leadership in one way, while others characterise it differently. Weber (1971) found that one effective school in his study had leadership from the school superintendent, which suggested that it was not present in the school itself. Further studies such as those by Scheerens and Creemers (1989) and Wildy and Dimmock (1992) have found that the importance placed on the leadership abilities of the principal in the United States is not duplicated to the same extent in the Netherlands or Australia.

The conclusion to be reached from this is that schools recognised as being effective will have some, or most, of the critical characteristics, such as good leadership, present within them, but it is the way in which these characteristics interact that ensures that the school is effective. It is possible that other schools will have an identical set of characteristics, but because the interplay between them is not right, the school is seen to be less effective. To take leadership again, it is possible that in some school situations, an authoritarian principal will bring out the best in both staff and students, because those staff and students are amenable to having a single decision-maker among them. That school might be seen as effective, both by those in the school and by those outside it.

However, that same principal, appointed to another school, where co-operation and collaboration in decision-making was an accepted and long standing tradition, may actually create an environment that prevents the school from becoming fully effective, because he tries to act in a manner that succeeded in the first school. To fully understand the complex issue of effectiveness, consideration must be given to both, how effectiveness has been recognised or defined and the difficulties associated with those definitions, and how an effective school operates, that is, the processes it uses to create the level of effectiveness it actually achieves.

TOWARDS A CLEARER UNDERSTANDING OF SCHOOL EFFECTIVENESS

It seems likely that controversy about the definition of school effectiveness arises because of the school's role as an agency for the educational development of the community. If school effectiveness is related to the achievement of educational goals at the school, school system or national levels, then conflicting views of what the goals of education are will bring similarly conflicting views of what an effective school is. The major problem that emerges for those interested in school effectiveness is how to resolve the apparent paradoxes among the goals, the priorities given to the various goals by various stakeholders, or any dissonance between the priorities accepted by a government, or a school system, and those accepted by an individual school. The different views held by school systems and schools might be considered as the macro and micro views of the role of education.

At the macro level there is an obvious current concern for school effectiveness at an international level and, within particular countries, at a national, state or systemic level. Countries around the world are considering policies and practices related to the development of more effective schools. The perspective adopted at this level is one of

comparison, where schools in one system are compared with each other or, with those in another system, state or country. These comparisons seem to adopt one of two competitive views namely, either "our schools are better than yours", or alternatively, "our schools need to compete successfully with those in other systems if our children are to take their rightful place in the world". Instances of the first type occur when governments release figures indicating apparent retention rates in schools or the amount per capita spent on education, as an indication of how "good" their education system is. Instances of the second type occur when governments indicate that to be educationally, or economically, competitive with other countries in the "world marketplace" students require specific skills and that schools have a role to play in the acquisition of those skills. In both instances, the underlying rationale is that, since education is a heavy consumer of money generated by the public purse, then it needs to be accountable for that money, and that accountability is best measured in terms of the output, that is, the percentage of students who complete school and the capabilities of those students when they leave.

There is also a micro view of school effectiveness which occurs at the level of the school itself. The school is more inward looking, being concerned for the progress and welfare of the students within that school, rather than relating to concerns such as the world economy, or even to concerns that other schools might have. Individual schools have to deal with a range of individual student abilities, and some students will never be capable of attaining the types of skills that seem to be demanded by those who consider the issues at the macro level. Schools have to balance the requirements of the macro view being proposed at the time with the adoption of a wider perspective which relates more to total student needs. In doing so, the school may have to accept the possibility that this might dilute the strength and focus of the educational program for all of the students in the school.

Neither point of view is without dilemmas and critics. The major dilemma for a macro view of education is its inability to respond quickly to changes that occur in society. The introduction of computers and robotics have changed the face of industry in a very short time, but it could be argued that the education system was only able to respond to these changes over a substantially longer period of time, as new curricula were developed, new facilities and equipment were purchased or instituted, then tested and implemented over the course of the student's school career. Any new development that requires a major attitudinal and skill change on the part of people exiting school may take up to fifteen years to implement. And, unlike previous generations, where the speed of change was more leisurely, by the time these new attitudes and skills have been implemented and students have adopted them, society probably has moved on again and a new set of skills may be required. The critics of the macro view of education argue that many individuals are lost to education by a rigid adherence to this perspective. Those that are unable to learn the specific skills required are relegated to an educational backwater, with all of the economic, social and personal penalties that are part of this deficiency.

The major dilemma for a school system which accepts a micro view of education, and responds to it through a devolution of decision making and responsibility to the school level, is that it is harder to match up the wider societal goals with local community goals for students. Accepting a micro view may eliminate the consideration of macro concerns altogether. It is possible that in trying to provide a wide range of options for individuals within the system, that none will have the skills required to compete at the macro level. The individual becomes more important than the society in which he or she lives. The critics of this view equate the broader view of the role of education with a drop in standards. They argue that to try and keep everybody in the system leads to a system that has no standards.

The conceptual dilemmas referred to above have made the study of school effectiveness more difficult. There needs to be some balance between a definition that is too specific and one that is too general, to establish what identifies the essential characteristics that describe effectiveness, rather than something else. Since all previous attempts to define school effectiveness have been considered as controversial, it may be better to identify some broad frameworks that help to aid an understanding of school effectiveness instead. In this way there may a better elaboration of the complexities of school effectiveness that are hidden by any single definition.

There seem to be four components necessary for the development of an appropriate understanding of an effective school. The first, and most critical to the understanding of school effectiveness, both conceptually and in practice, is the nature and the extent of the educational goals considered to be central to an effective school. It is also necessary to consider the technique used to identify schools as being effective or not and the way in which those goals will be measured. These three components, together, can be used to generate a model, or framework for understanding how effective schools might be recognised or defined. The final component considers the school processes used to make that school effective in practice. This component, in conjunction with the goals accepted by the school, creates a second model or framework which considers the ways in which the accepted goals of education are actually achieved in schools.

THE GOALS OF EDUCATION AND THE ROLE OF SCHOOL

One problem for school effectiveness research is to identify some way in which the goals of the system as a whole can be balanced against the goals of individual schools, or individual students, so that this balance becomes acceptable to those that adopt either the macro view or the micro view of education. The resolution of this problem requires a consideration of what the role or roles of education are and how school and school systems fit into this role. In simple terms, the role of the school is to be one of a number

of agencies (along with universities, adult education providers, churches, community groups, etc.) involved in the attainment of the goals of education. All schools would have similar, if not the same, goals. An effective school is one that undertakes that role with high levels of success, that is, does its job well. A less effective school would have similar goals to an effective school, but wouldn't achieve them as well. A consideration of school effectiveness thus becomes a two-fold issue, considering firstly, what the goals of education are (for all schools), that is, what schools should be doing, and secondly, how to measure appropriately the extent to which individual schools achieve those goals.

From an Australian perspective, a national move towards common goals and curriculum areas has helped to define the roles of individual schools. In April 1989, the Australian Education Council, the meeting of Commonwealth, State and Territorial Ministers of Education, identified ten national goals for schooling in Australia. The goals encompass a number of considerations, including the issue of relevant curriculum areas, the issue of social justice and the issue of the role education plays in national economic development.

Four goals identified the knowledge, skills and attitudes considered to be appropriate for students in all schools. They were:

* To develop in students:
  * the skills of English literacy, including skills in listening, speaking, reading and writing;
  * skills of numeracy, and other mathematical skills;
  * skills of analysis and problem solving;
  * skills of information processing and computing;
  * an understanding of the role of science and technology in society, together with scientific and technological skills;
  * a knowledge and appreciation of Australia's historical and geographic context;
  * a knowledge of languages other than English;
  * an appreciation and understanding of, and confidence to participate in, the creative arts;
  * an understanding of, and concern for, balanced development and the global environment; and

* a capacity to exercise judgement in matters of morality, ethics and social justice.

* To develop knowledge, skills, attitudes and values which will enable students to participate as active and informed citizens in our democratic society within an international context.

* To provide students with an understanding and respect for our cultural heritage including the particular cultural background of Aboriginal and ethnic groups.

* To provide for the physical development and personal health and fitness of students, and for the creative use of leisure time.

(Australian Education Council, 1990:1)

A number of other national goals, which encouraged school involvement in social justice issues reflected the social justice concerns of the Australian Education Council. These included:

* To enable all students to achieve high standards of learning and to develop self-confidence, optimism, high self-esteem, respect for others, and achievement of personal excellence.

* To promote equality of educational opportunities, and to provide for groups with special learning requirements.

(Australian Education Council, 1990:1)

Finally, the list included overtly economic goals which were intended to address the need for Australian graduates to have the skills and attitudes necessary to become competitive in the world of economics.

* To provide an excellent education for all young people, being one which develops their talents and capacities to full potential, and is relevant to the social, cultural and economic needs of the nation.

* To respond to the current and emerging economic and social needs of the nation, and to provide those skills which will allow students maximum flexibility and adaptability in their future employment and other aspects of life.

* To provide a foundation for further education and training, in terms of knowledge and skills, respect for learning and positive attitudes for life-long education.

* To provide appropriate career education and knowledge of the world of work, including an understanding of the nature and place of work in our society.

(Australian Education Council, 1990:1)

The listing of these ten goals indicates that the Australian Education Council considers that a wide range of issues need to be addressed by every school in the country. Yet some of the goals referred to can only be addressed, in practice, by school communities. Educational authorities can only list them as goals. It is possible to identify certain goals that are (or should be) accepted by all schools, and this might provide the first dimension for the models of school effectiveness to be developed as an outcome of this paper.

LITERACY AND NUMERACY

The first two of these goals would attract no dissent. Both literacy and numeracy are key goals for any society as they are the basis for most education, but also for both communication and commerce. Although the types of literacy required now and in the future may be changing to include computer literacy and understanding other forms of communication, the ability to read and write and numerate will always be a goal of education.

OTHER ACADEMIC GOALS

A further goal of education would be successful performance in other academic subjects, such as an understanding of science and technology, a knowledge of history, geography and cultural background and an appreciation of the arts, as listed in the Hobart Declaration above.

BEHAVIOUR AND ATTENDANCE

Rosander went even further to identify other components of school's activities, such as behaviour and attendance as being goals in which effective schools had a role to play:

> Effective schools are those in which all students master basic skills, seek academic excellence in all subjects, and demonstrate achievement through systematic testing. As a result of improved academic achievement, students in effective schools display improved behaviour and attendance.
>
> (Rosander, 1984:1)

The twin goals of attendance and behaviour were also considered important components of the British research of Rutter et al (1979) and Mortimore et al (1988).

SELF-CONCEPT

A further role that schools are asked to accept is the development of the individual student's self concept. British studies (Rutter et al, 1979; Mortimore et al, 1988) identified the importance of the individuals' perceptions of themselves and their social development, one which was also accepted in the Hobart Declaration with its goals for the development of "self-confidence, optimism, high self-esteem, respect for others, and achievement of personal excellence" (Australian Education Council, 1990:1). This development of self-concept was also considered to be of considerable and specific importance by the Halton Board of Education (Stoll and Fink, 1989).

CITIZENSHIP AND EMPLOYMENT

A gallop poll survey of 1985 considered issues of employment and citizenship as being central to the role of schools. Respondents throughout Australia were asked whether they felt the major role of education was to equip young people to be good citizens or to equip young people for the workforce. ("The Herald", June 4, 1985). Thirty seven per cent of the 2062 people surveyed responded that the main purpose of education was to equip young people for the workforce, 56 per cent responded that the main purpose of education was to equip young people to be good citizens and 3 per cent felt that both should be considered concurrently. Although part of the role of citizenship includes contributing to society through productive employment, being a good citizen means more than simply being employed. The Hobart Declaration identified that the role of school included "to provide those skills which will allow students maximum

flexibility and adaptability in their future employment and other aspects of life", and ..."to participate as active and informed citizens in our democratic society" (Australian Education Council, 1990:1), which indicates that even in current educational thinking, schools have a role to play in the development of both citizenship and employment skills.

OTHER EDUCATIONAL GOALS

There are a variety of other educational goals that exist in all schools, such as the physical, social, emotional and spiritual development of students, which do not fall neatly into any of the categories already listed, but impinge upon a number of them. The physical, social and emotional development of the student may be partly academic, partly self-concept and help to promote citizenship and employment capabilities.

COMMUNITY GOALS

All of the goals discussed so far consider the development of individual children, but there are also wider community goals that need to be considered within the school. Communities need to know that their children are safe, happy and are progressing well in a variety of areas, as suggested by a study conducted in New South Wales (Educare News, 1991). Over one thousand parents in thirty four Catholic schools in Sydney's eastern suburbs responded to the survey conducted by the Sydney Catholic Education Office. Respondents were asked to rank twenty one statements starting with "I want school to help my child become.....". The researchers collated the results and ranked the responses by identifying the number of times each response was identified as one of the top three rankings for each respondent. The most accepted responses, and the number of times they were listed in the top three by each respondent, were:

able to think for himself/herself	431
self-confident	376
happy	274
well-balanced	267
self-disciplined	230

The least supported responses were :

smartest kid in the class	1
good at sport	5
competitive	6
a good writer	15
easy to get on with	15

(Educare News, 1991:6)

This study gives a clear indication that for many Australians there are many qualities, apart from the academic that are seen as desirable outcomes of the school experience. This is not to suggest that had issues such as being able to read, write and numerate been listed, that they they would not have scored highly, it only indicates that a wide range of requirements is expected of schools, and to concentrate on only a few of those would be seen as being not responsible. The need to identify and respond to these wider community needs becomes an additional set of goals for schools to consider. The figure below provides one possible way in which the goals of education might be characterised. It becomes the first dimension of the conceptual model for school effectivness.

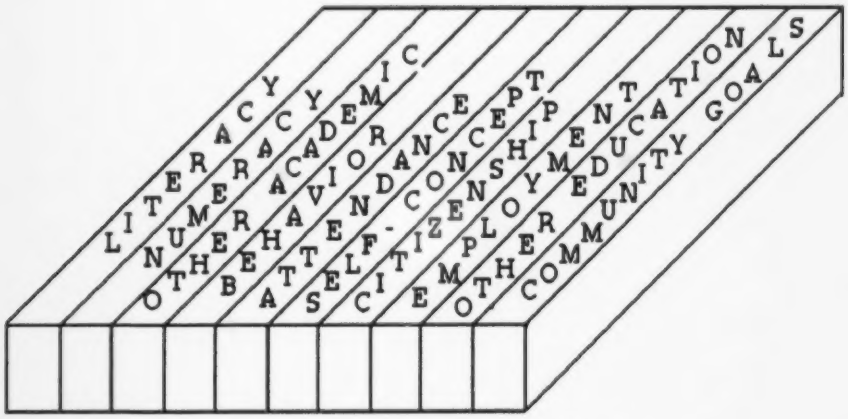

Figure 1: Possible School Goals

It could be argued that an effective school is one that considers all of these goals, and develops strategies for ensuring that all students within the school experience success in each of them.

RECOGNISING EFFECTIVE SCHOOLS

Perhaps the most important area for consideration in defining an effective school is that of being able to recognise a school as being effective or not, given that particular definition. The literature indicates that more than one approach has been used to identify the level of effectiveness of schools. A consideration of these approaches may clarify some of the difficulties related to the identification of effective schools and may also help to clarify some of the conceptual issues as well.

STANDARDISED TESTING

One commonly accepted means of identifying effective schools is through the use of standardised testing. In this instance, students would undertake a common test which would be independently marked, and each individual student could be compared with others in a defined group, which might be a city, a region or district, an educational system, a state or a nation. Since individual students attend schools, then schools, too, can be identified as being more or less effective on the basis of the standardised data. In some school systems, the results are published and in other school systems, such as the United Kingdom, schools have been publicly ranked according to their success rate on standardised tests.

Although the use of established data bases such as test scores in academic subjects is seen as an objective way of identifying effective schools, there are also difficulties with this form of assessment. The first concern for this method of assessment is that, as it is statistically based, it automatically means that a proportion of schools will be seen to be not as effective as others, regardless of what they might be doing to change the situation. An individual school may have improved dramatically over a period of years, but if other schools improved as well, it may be still looked upon as being less effective or not effective at all. The statistical basis of the interpretation does not take into account improvement, unless the testing is criterion based. The second concern relates to the range of data collected as a basis for the judgement. It might be argued

that the collection of the easily measured aspects, such as test scores in specific academic subjects is too narrow, but the time involved in collecting and standardising process data or data relating to relationships between the key groups within the school makes it less likely that these would be included in any standardised form of identifying effective schools.

THE REPUTATIONAL APPROACH

A second means of identifying effective schools is through a reputational approach, where people who are skilled and knowledgeable about a number of schools are asked to consider their capabilities and progress. The reputational technique can be seen from the perspective of how a school system identifies the level of effectiveness of individual schools within that system, but also from the perspective of how a researcher might identify effective schools to be used for further study. The major concern with the reputational approach is the subjectivity of the choices made. As well as the "expert" only being able to choose those schools known to him, which would be a small proportion of all schools in the system, the validity of the choice will depend on the criteria being used. The perspective of the outsider visiting the school will not only be a snapshot view of what actually occurs in the school at a particular time, but will also depend upon the information collected or not collected (for whatever reason) from the school and may be influenced by the visitor having different educational goals to those operating in the school.

PROCESS OF SCHOOL REVIEW, APPRAISAL AND DEVELOPMENT

A third way of identifying the effectiveness of schools could be through the use of local school records considered during the school's ongoing process of self appraisal and development. Even though a school may not be involved in a standardised testing process, the use of school written and observational records, such as academic achievement records, attendance and discipline records, teacher styles and staff development activities and records of curriculum review and development might help

to determine the level of effectiveness of a particular school. It is likely that these would be used in conjunction with one of the two previous methods in order to build a more comprehensive picture of the school. This process would involve a regular self-evaluation activity by the school.

Since a total school review encompasses a huge range of variables, such as, "the needs of children, guidance and counselling, evaluation and testing, curriculum, administration, community, and the local district" (Robinson, 1984:143), and possibly a lot more, the need for a review plan becomes obvious. Such a plan, or framework, was provided by Caldwell and Spinks in The Self -Managing School (1988), as a result of the Effective Resource Allocation in Schools Project (ERASP) which had commenced in 1982. The framework integrated "goal-setting, policy-making, planning, budgeting, implementing and evaluating in a manner with the often unsystematic, fragmented processes which have caused so much frustration and ineffectiveness in the past." (Caldwell and Spinks, 1988:3-4). Caldwell and Spinks identified four major issues related to the development of self-management within a school, they were: a focus on teaching and learning, a framework for accountability, the appropriate involvement of staff, parents and students, and programs for professional development.

COMMUNITY INVOLVEMENT IN THE IDENTIFICATION PROCESS

Many governments of the world have emphasised their support for a variety of approaches designed to make schools more effective. One major move has been the acceptance by governments that the involvement of local communities is a factor in the level of effectiveness of schools. This has caused an alteration in the direction of some school effectiveness research from one where the influence of family and community background was shown to be minimal or able to be overcome, to one where the obvious

influences of a child's background on his academic achievement are utilised to improve what happens in schools.

In Victoria, Australia, Aglinskas et al (1988) asked people at the school level about their perceptions of the effectiveness of schools. Of 189 school community members who responded to the survey, over 80% felt their school was effective, and only 2% felt that it was ineffective. This finding supports Cirone (1990), who commenting on similar results in an American Gallup poll, said :

> ...despite the political hay that can be made by pointing fingers at education, it seems clear that the public isn't buying. They hear how terrible schools are, how business can't find literate workers, and how we compare terribly with other nations, and they rate our national schools accordingly.
>
> However, as the overall ratings indicated, they also see first-hand the miracles that occur in their own schools with their own children, and the vast majority say they are extremely pleased with what they see.
>
> They hear reports about the demise of public education, but what they actually see for their own children, for whom they are the world's harshest critics, they rate above average or excellent.
>
> (Cirone, 1990)

The four different means of identifying effective schools become the second dimension of the model. It can be visually represented as:

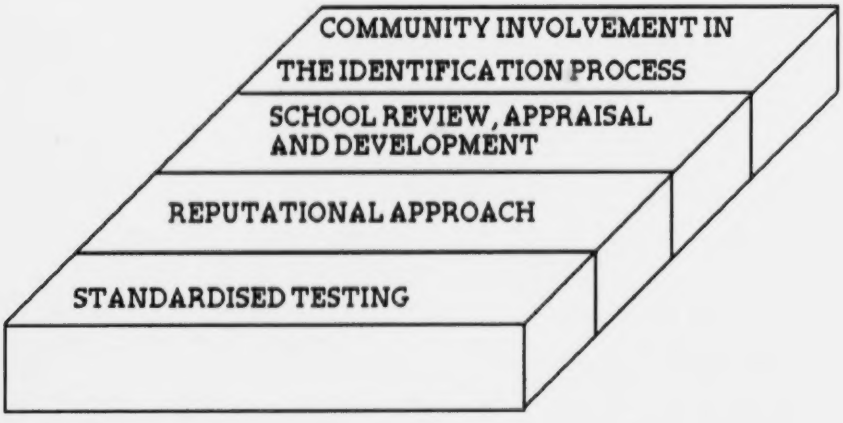

Figure 2: Techniques for Identifying Effective Schools

TECHNIQUES FOR MEASURING SCHOOL EFFECTIVENESS

A recent part of the school effectiveness research has been the attempt to provide a series of indicators to judge the effectiveness of schools. Many of the indicators have widened the scope of the judgement being made from purely academic performance on standardised tests to include a variety of other things that happen within a school. Many of these performance indicators have been developed as a mechanism for judging the effectiveness of various goals discussed in previous paragraphs. McGaw, Banks and Piper stressed the importance of evaluation in the school improvement process:

> Evaluation and review serve a range of purposes from helping to plan what to do next to providing an account to others about what has been happening. Because feedback is so basic to school improvement, initiatives that are designed to enhance features of the school are more likely to flourish in school environments that include evaluation and review as regular elements of the school improvement program.
>
> In addition, evaluation and review provide another opportunity for staff, parents and students to work collaboratively. The process offers another setting in which to describe their expectations and to assess how well they have been achieved.
>
> (McGaw, Banks and Piper, 1991:15)

This method of determination would most likely look at more than solely academic results, considering the many possible gains a child can make at school, since a full evaluation of a child's development involves much more than simple testing. Evaluation considers the child's development socially, emotionally, and in terms of developing independence or leadership, or in a host of other ways. This makes the issue of standardised testing a problem since, if every possible developmental area of the child was to be tested, there would be little or no time left for learning. Somewhere in the past it has been determined that schools were designed for academic learning, and the history of education shows few attempts to broaden or alter that view. The complexities of school life and the variety of possibilities for human attainment in the 1990s does not enable a standardised testing procedure, however it is implemented, to be a totally useful measure on its own. Something more needs to be developed.

The acceptance of the legitimacy of the effective schools literature by policy makers created a situation which will need to be faced by local schools in the near future. It is not possible to identify a series of characteristics associated with effective schools without at least considering the issue of how to assess whether or not these characteristics are operating well in the schools. As Schools and Quality points out, "There has recently emerged widespread international interest in educational indicators. The call for better and more relevant information on the functioning of schools is now audible both from within education systems and from bodies outside their traditional ambit" (OECD, 1989:44). The exercise of identifying qualitative information from a statistical base is fraught with danger.

The Santa Clara County Office of Education (1984b) provided a service to its schools that was a system for assessing the school's effectiveness through a program called the Basic School Profile. The Basic School Profile consisted of two parts:

> 1) a profile of the perceptions of teachers, students and parents with respect to the school's functioning on a variety of school effectiveness variables within the learning climate, social climate, instructional leadership, organizational climate and home climate;
>
> 2) a profile of the school's performance on five different student outcomes: achievement in reading and math, self concept, school conduct and attendance. School performance on each of these outcomes is broken down for several student subgroups: ability level, sex, grade level, ethnicity, language dominance and parent education background.
>
> (Weil, 1984:1)

The two parts of the profile consider firstly, school processes and secondly, school outcomes. This enabled schools to identify whether, both the processes and outcomes of the school were effective, the processes were effective but the outcomes were less effective, or vice-versa, or both processes and outcomes were ineffective. The purpose of this exercise was to provide the school with information that related school functions to

educational outcomes, and gave the school a data base to make comparisons in future years.

The use of performance indicators that relate solely to the development of academic skills does not guarantee the successful evaluation of a particular school's overall performance. In many respects, it might be argued that these specific indicators have been chosen because they are the easiest to measure. It is easier, for instance, to measure a child's performance in reading, than it is to measure the same child's relationship with, and feelings about, the classroom teacher. Yet it is possible that the level of interaction between the two and the positive or negative feelings that they have for one another, may count just as much in the child's reading score as does the time the child spends on the task of reading. The concern for the processes that are used within the school may turn out to be equally, if not more, important, than the programs of the school, when it comes to measuring that school's effectiveness in helping particular children. Regardless of what is being measured, it seems to be only two ways of measuring performance. Those are the "outcome" method, which concentrates on where the student is at a particular time, and the "value-added" method, which considers how far they have progressed over time.

The outcome view of the effectiveness of schools, although it had gained wide acceptance in the United States, concerned many researchers in other parts of the world. Critics in Australia (Angus, 1986; Ashenden, 1987; Banks, 1988) and Europe (Goldstein, 1984; Cuttance, 1987; Mortimore et al, 1988) were particularly concerned that the concentration on simple inputs and outputs of schools, and the subsequent recipe approach to school improvement that was adopted by American researchers and policy makers ignored the complexities of what took place in individual schools and how those schools utilised the resources available to them. The problem with an outcome based interpretation was that it was too difficult to determine which outcomes were due to the students themselves and which were based on what the school had accomplished.

Some of the early British research was governed by an educational psychology orientation and, therefore was more concerned about individual children rather than school effects. This concern was brought about by what might be considered as the "value-added" view of school effectiveness. Schools were not to be judged simply on the results of standardised tests, since these results may have been more a factor of the children themselves rather than of anything the school had "added", but on the basis of what development the students had made during the course of their school career. Research, such as that by Rutter et al (1979), Cuttance (1986, 1988a,b,c) and Mortimore et al (1988) acknowledged the more complex interactions that needed to be addressed at the school level and a different view of school effectiveness emerged. The Mortimore study of fifty English junior schools, sought to "find a way of comparing schools' effects on their pupils, while acknowledging the fact that schools do not all receive pupils of similar abilities and backgrounds" (Mortimore et al, 1988:176). Factors such as the ethnic composition, language background, social class and family composition of the pupils, together with other considerations, were all used as relevant data to assist in the determination of the gains that pupils made during their time at school. The study not only considered attainment, but progress as well, in academic areas such as reading, mathematics, writing and oracy, and also the non-cognitive areas of behaviour, attendance, self-concept and attitudes towards school.

Using a value-added approach, decisions could be made, for instance, to test every student in a range of subject areas upon entry to school and before school completion to determine how much the student has learned in the time spent at school. This might in turn be judged against national or state expectations for children of similar socio-economic backgrounds. Should all or most children achieve these expectations, then the school might be considered effective. The difficulty with this approach is that it might be perceived as accepting that standards in poorer areas can be below those in more well-off areas, thus reinforcing the differences that school effectiveness was trying to eliminate. However, the "value-added" view of school effectiveness has

gained increasing acceptability and is the accepted interpretation of an effective school by the 1991 Effective Schools Project currently underway in Australia. Despite this acceptance, McGaw, Banks and Piper expressed the view that "There is no definitive *how* of effective schools and so there can be no one recipe for every school to try. Schooling is too complex a business for a recipe" (McGaw, Banks and Piper, 1991:15), which indicates that further consideration of the dilemmas implicit in how we judge whether or not a school is effective is required.

It could be argued that neither the outcome nor the value-added approach is acceptable in itself, and that for a school to be effective there must be a high proportion of students who succeed on outcome measurements such as standardised tests, substantial improvement for those who don't fully succeed, and a value-added approach adopted for those school goals that do not easily lend themselves to statistical measuring devices. This would ensure that the final outcomes of school were seen to be important, but would also ensure that those outcomes were a product of school activity in addition to anything that the students themselves were able to contribute. The measurement component adds a further dimension to the conceptual model of school effectiveness, as is indicated in figure 4.

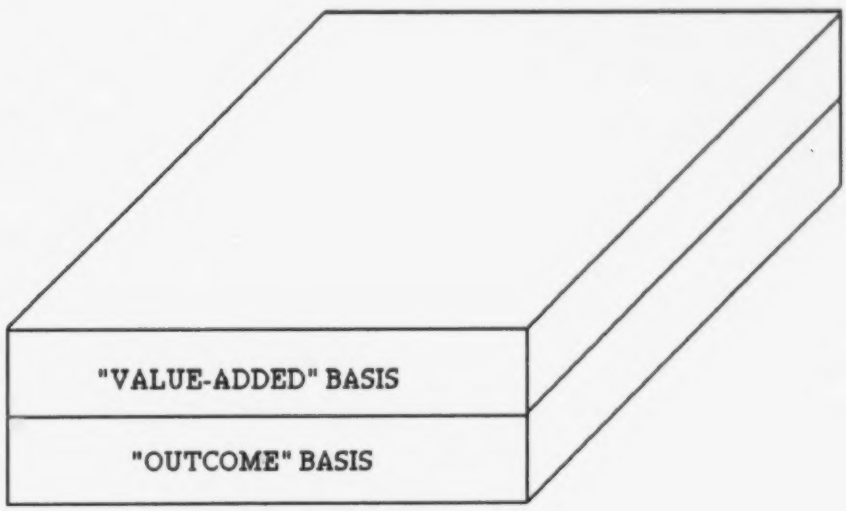

Figure 4 : Techniques for Measuring Effective Schools

PROCESS ISSUES IN SCHOOL EFFECTIVENESS

A fourth dimension required for a more complete understanding of school effectiveness emerges when consideration is given to the way in which school goals are identified, resourced, implemented and evaluated, that is, the way in which the educational program of the school is administered. In many respects, the goals of school have always been directed towards the students, but without an effecient and effective process for implementation of these goals many of them could be lost in practice. Having an efficient and effective set of processes within the school might be seen as the link between the theory of school effectiveness (or recognising effective schools), discussed in previous paragraphs, and its practice (or making schools effective).

The issue of school-based decision-making and management is becoming one focus of the school effectiveness literature, as political decisions in a number of countries such as the United States of America (Berman et al, 1988; Guthrie et al, 1990; Hixson, 1991), Canada (La Roque, 1983; Coleman, 1987) the United Kingdom (Education Reform Act, 1988; Holdaway, 1990) and New Zealand (Caldwell et al, 1988; Minister of Education, 1988), as well as Australia (Fordham 1983), place more emphasis on local involvement in school management. As political decisions force those at the community level to be involved in educational management, researchers are starting to be more active in research that tests the effectiveness of school site management. Much of the school-based decision-making literature (Henderson, 1987; Henderson and Marburger, 1986; Henderson and Lezotte, 1988; Rosenholtz, 1989) suggested that if decisions relating to school people and situations were made at the school level then there was a better chance of having the right decisions made than there was if the decisions were made away from the school at a district, regional or state level. However, in many cases, the people who have to work with the new responsibilities implicit in localised control of schools

are not fully consulted about what those responsibilities entail and, in other cases, the support systems that are necessary to make the new heightened level of local input work are not provided. The political ramifications of the movement towards school effectiveness may well be just as complicated as the concept itself.

Murphy, Hallinger and Mesa argued that the central educational authority should establish what should be taught in schools through a basic core curriculum and content expectations and requirements (Murphy, Hallinger and Mesa, 1985). However, Rosenholtz (1989) concluded that the "success of any strategy for enhancing student performance depends largely on the context in which schooling occurs, an inherent part of which involves the **empowerment** of the people at the school site" (in Chapman, 1991:14).

A number of critical process issues emerge, each of which has an effect on the way in which the school actually operates. Each of these process issues interact with the educational goals set for the school and with all of the other processes operating in the school to create the actual level of effectiveness experienced by that school. These internal arrangements will vary from school to school, but are in all schools to some extent, and can be generalised into certain categories. The major school process categories that have an effect on the way the school actually operates are:

LEADERSHIP

> The process of leadership will have an effect on all aspects of school performance, and can have many dimensions for consideration. These would include the leadership density in the school (whether one person, a few people or many different people or groups take leadership responsibility for one or more aspects of school operations) and the form of leadership being used by those in charge (authoritarian, hierarchical, democratic, task-oriented, people oriented). Depending on each of the other processes in operation in the school, the type of leadership employed can have a positive or negative effect on the development of school effectiveness.

DECISION-MAKING

The form of decision-making and the people involved in the decision-making process will also affect achievement within the school. It is possible for decisions to be hierarchical, such as those made outside the school (by districts, regions, eductional authorities or governments) or by a limited number within the school (principal and senior staff), or on a more democratic basis, (by all staff, or by including parents and students). No one form of decision-making can be considered as being superior to others, since all of them should to be based on particular situations and circumstances, however, research indicates that decisions made democratically or locally have more chance of being implemented than those made hierarchically or at a distance from where they will be put into practice (Henderson, 1988). The decision-making processes used will have an effect on the rest of the activities undertaken by the school, because it is this process that identifies not only the goals to be considered important in the school, but also plans for development, strategies for implementation and allocation of resources to ensure that the goals are achieved.

INVOLVEMENT OF EDUCATIONAL STAKEHOLDERS

Considerations of the involvement of various educational stakeholders, such as students, parents and members of the local community, in the operations of the school in the various operations that schools undertake, has become a recent concern for governments, education systems and researchers. Governments and educational systems in many parts of the world are encouraging local communities to be more responsible for the local school, both financially and in terms of the educational program. Part of the considerations given to this process would include not only the types of school activity that involved various groups in the school, but also the encouragement given and access and resources provided by the school or educational authority to enable those groups to become meaningfully involved.

RESOURCE ALLOCATION

In any school, limited resources are supplied to enable school goals to be achieved. In many cases, additional resources must be found to enable the school to minimally achieve its goals. This difficulty means that decisions about the way in which school resources, both human, physical and financial, are allocated, and their actual allocation, becomes critical to the level of effectiveness of the school.

CURRICULUM IMPLEMENTATION

The way in which the curriculum is implemented includes such issues as the quality of the program offered and the teachers involved in teaching that program, the expectations held by the school community and the motivation techniques developed and used by the school to achieve those expectations, the amount of time allocated to various subjects or events, the type of instruction used (whole class, groups, excursions etc), and the way in which a student's progress through the program is monitored. It also includes issues such as the level of involvement by the student in decisions about their own learning, the facilities offered by the school (such as specialist rooms and equipment) and the

opportunities provided for teachers to ensure that the quality of teaching is enhanced.

SCHOOL ENVIRONMENT, CLIMATE AND CULTURE

The development of the school environment and the school culture is a complex process that relates to considerations of how various groups within the school interact with each other and other groups, how the school is seen by people within it, the physical and administrative arrangements of the school that enhance individual and collective progress, both academically and culturally, and the conditions under which each member of the school community enters the school. Students need to feel secure and positive about the school, teachers need to feel valued and be professionally enriched by their teaching, and parents and community members need to feel welcome and involved.

COMMUNICATON

The way in which groups within the school communicate with each other is an important factor in how effective the school will be. Information will be open (to all, or most, people) or closed (to a few people within the school). It will be the one-way (from the principal to the staff or from the school to the parents) or two-way (with many people able to communicate and interact with others). This will automatically effect the way in which the school operates.

Since each of these will have an effect on each of the others simultaneously, as well as on the educational goals that are to be achieved, then the consideration of this area is far more complex than the simple recognition of whether a school is seen to be effective. The analogy that might be drawn here is the difference between knowing something, such as $E = MC^2$, and understanding it.

As such the way in which leadership operates within the school will have an effect on the other six processes identified and on the goals that the school will have. A change in the leadership style will bring about a change (perhaps over time) in all of the others too. The same can be said for each of the other processes identified. Each will affect the operations of all of the others. This means that every school must be considered as a unique combination of its processes, resources and goals. From this perspective, it makes little sense to argue that if one school tries to emulate the characteristics of another, more effective school, then it can become as effective as that school, because each school will have a different combination of resources, goals and processes that

interact with each other. To change one set of characteristics could not guarantee a change in the others.

THE EFFECTIVE SCHOOL: A MODEL FOR RECOGNITION AND A MODEL FOR UNDERSTANDING

The argument provided above suggests that a single model for school effectiveness will not suffice. Two (at least) are necessary. The first model that might assist in a better understanding of how to recognise an effective school, namely, one which considers the concept of an effective school. The second model is necessary if we are to understand how that effective school came to be that way. In the first instance, three components related to a conceptual understanding of an effective school are the goals, adopted by effective schools, the means used to recognise effective schools, and the means to measure the level of effectiveness of a particular school, need to be considered. If these are combined, then the model contained in figure 5 emerges.

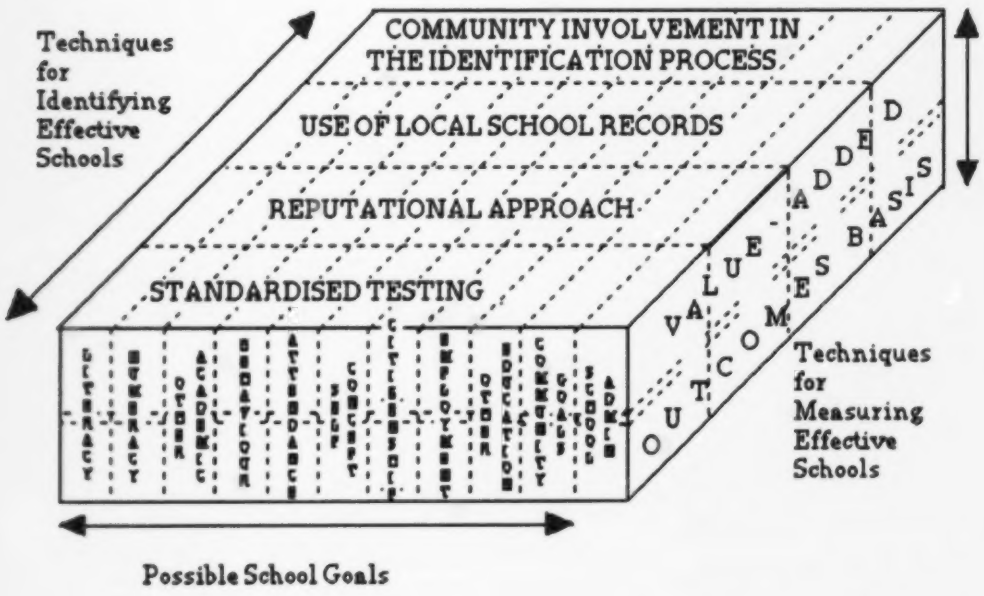
Techniques for Identifying Effective Schools
COMMUNITY INVOLVEMENT IN THE IDENTIFICATION PROCESS
USE OF LOCAL SCHOOL RECORDS
REPUTATIONAL APPROACH
STANDARDISED TESTING
Techniques for Measuring Effective Schools
Possible School Goals

Figure 5: A model for recognising school effectiveness

Given the very real difficulty of ever achieving a universally acceptable definition, the model identified above can be used to develop a framework that will assist in the recognition of an effective school. Some things will be non-negotiable. The school should be offering a quality program. All students within the school, regardless of their background, should experience both success and improvement in their movement through the program. A variety of techniques should be used to identify whether or not the school is effective. The flexibility from a recognition point of view, comes from the possibility that different countries, different school systems, or even different schools might have slightly different goals which could generate different programs.

Thus a possible definition for an effective school that might be acceptable to all parties would be:

> An effective school is one that develops and maintains a high quality educational program designed to achieve both system-wide and locally identified goals. All students, regardless of their family or social background, experience both improvement across their school career and, ultimate success in the achievement of those goals, based on appropriate external and school-based measuring techniques.

The model provides an opportunity to establish how comprehensively an individual school operates in terms of the effectiveness dimensions. A researcher can look at the range of goals undertaken by the school, can use various methods for determining the effectiveness of the school and can see whether the school is considered effective using the "outcome"or "value-added" approaches, or a combination of both.

Alternatively, the model can be used to determine how comprehensive an approach was taken by past research in the area. For instance, it would be possible to compare the work done by Edmonds (1979a) and by Rutter et al (1979). If their work is plotted onto the model then the results is indicated in figures 6 (Edmonds) and 7 (Rutter et al). The Edmonds research was more limited in terms of recognising school effectiveness than was the Rutter research, but even the Rutter study could have gone further.

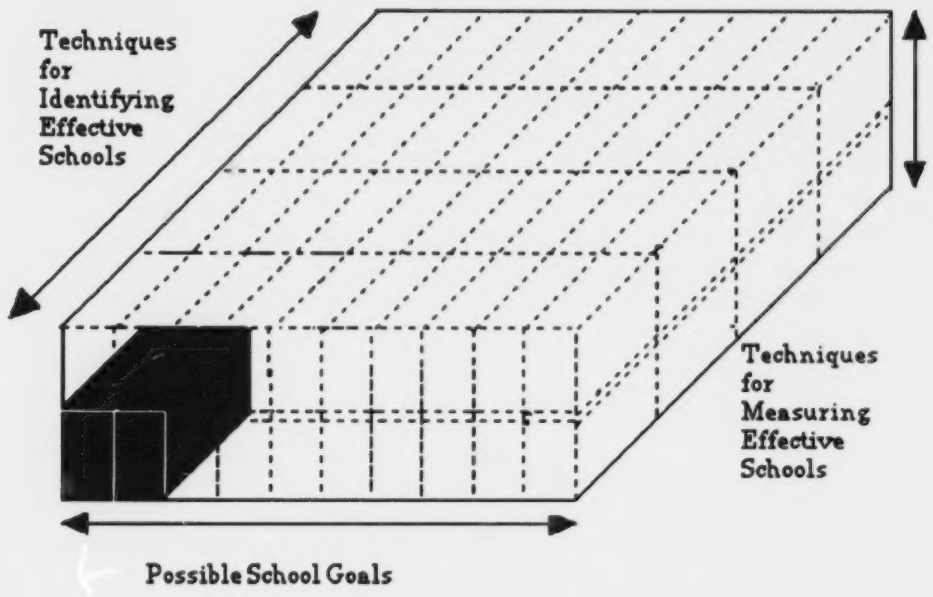

Figure 6: Edmonds' contribution to an understanding of the framework for recognising school effectiveness

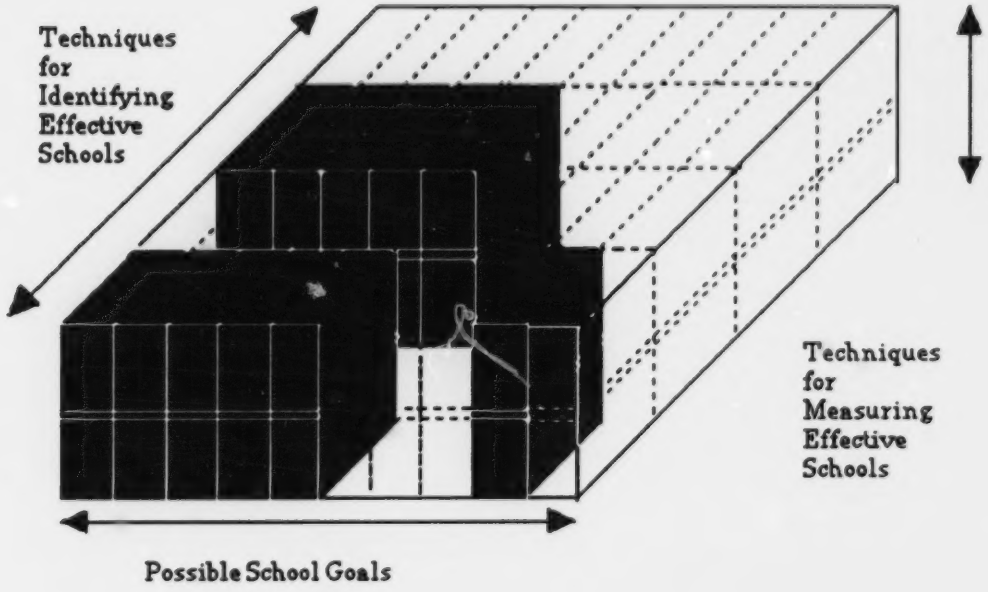

Figure 7: Rutter at al's contribution to an understanding of the framework for recognising school effectiveness

The second model needed for an understanding of school effectiveness is that which relates to the complex interaction of goals and processes, is far more difficult to interpret, just as what actually happens in schools to make them effective is hard to interpret. Because there is a complex web of interactions between the various major processes of the school and the goals that the school will eventually adopt, then the model, necessarily, is complex also.

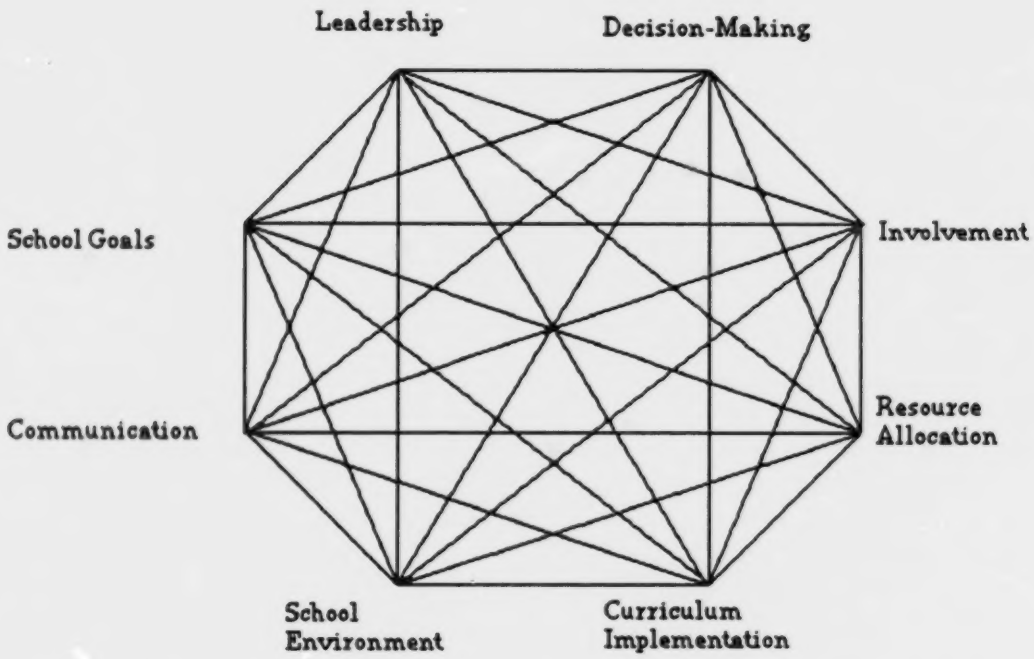

Figure 8: A model for understanding school effectiveness

Figure 8 proposes a model that suggests that all seven processes identified, and the educational goals of the school are both, of equal importance when it comes to understanding how a school becomes effective and, are in an interactive relationship with each other. It suggests that a change in any one of the eight parameters will bring some change to all of the others. Alternatively, if an explication of one of the eight features is attempted, it must include reference to each of the other seven to gain a full picture of how it operates. In the same way that touching any of the strands of a spider web will make the whole web vibrate, so changing the nature of one of the eight

elements in the school effectiveness web will have an effect on, if not alter the characteristics of, each of the other seven. The model may not provide much assistance in trying to fully explain how a school becomes effective in practice, but helps to explain the complexities facing anyone that attempts the exercise.

These two models, together, provide some measure of understanding the complexity of the issue, but also help to explain why the research in school effectiveness thus far has concentrated its attention on the recognition of effective schools rather than an explication of how they came to be that way.

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